

Knowledge and Belief

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The Aim of this study :

The aim of this study is to give a systematic exposition of the Islamic philosophers' views on " knowledge and belief ". Their repeated, though perhaps unsuccessful, attempts to define these allusive concepts are surveyed, starting with al-Kindi and ending up with al - Ghazali. Ibn Rushd was left out , because he represents a category of his own , whereas these "Oriental" Islamic philosophers, more or less , belong to the same cultural milieu .

The outcome of this study is an attempt to show:

- (i) that these Oriental Islamic philosophers were basically great synthesizers, who managed to amalgamate major strands of philosophical thought, Islamic, Greek and Oriental, into one homogeneous and coherent system of philosophy.
- (ii) that they argued for and emphasized the oneness of truth, irrespective of the source(s) from which it is drawn, and that divinely revealed knowledge and pure rational philosophical truth , ultimately merge together and lead to the same conclusions .
- (iii) finally, that, for these Islamic philosophers, all human knowledge, whatever its definition may be, and whatever its sources, will not be possible without the postulation of some sort of a transcendental divine help or intervention. Even natural reason itself is a divine gift , let alone these extra-rational sources of inspiration, introspection and intuition. Ibn Rushd stands separately, because he subscribed very staunchly to Aristotelian realism.

[1] Prologue: The Greek Conception of Knowledge

The strive to acquire knowledge is a basic human propensity. Aristotle says that every man desires naturally to know . Arab philosophers express this notion by saying that man is a tul'ah (i.e; he is by nature inquisitive). According to Plato , nothing deserves the name of knowledge unless it is the knowledge of that which is real, universal and unchangable, i.e, knowledge of the forms or ideas, which constitute the highest realm of Being, i.e., Being which is most primary and in the fullest sense of the word . The sensible things of this world exist in a secondary sense as shadows and imitations, imperfect exemplifications of the Forms, which are the real prototypes of which

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the sensible things are mere imitations. In the middle between the world of Forms and the world of sensible things is the world of intellegible entities . To Plato , the understanding of the sensible things is no more than mere Doxa, i.e, mere belief or mere opinion . Mere belief is not knowledge . It is merely thought of as real knowledge by someone who mistakenly believes to have attained true knowledge, like the state of the man in the simile of the cave (in Plato's Republic). So long as he is confined to the cave, he wrongly identifies the shadows he sees in the wall of the cave as the real things, outside the cave. The soul only attains true knowledge by a process of meditation and reminiscence in a dynamic practice in the ascending dialectic, until it comes to have a direct intuition (Noein) of the Forms. The highest, supreme Form is that of the Good and the Beautiful. Aristotle disregarded the theory of the forms, but continued to be influenced by the salient features of Plato's theory of knowledge as true belief, justified and reinforced by direct intuition, i.e, by a logos. To Aristotle, as it was to Plato, the object of knowledge must be real and universal. Since Aristotle has rejected the theory of Forms, the object of knowledge, for him, was the true universal quidity or essence of things, which is both real and permanent. This could be attained either by a direct, simple inference, or by a syllogistic inference which proceeds from true, apodictic premises to a true conclusion, which is truely and necessarily implied by these premises, in accordance with the rules of correct, valid inference. Thus, the Theory of the Syllogism came to represent Aristotle's theory of true, certain knowledge. As this theory is deductive, representing relations between universal terms, and inference from true, necessary premises to true necessary conclusion, so the knowledge obtainable from it is, likewise, deductive logical knowledge, with no direct implications for the real factual world. Thus it is controversial whether the theory of the Aristotelian syllogism has any direct bearing on the world, i.e, whether or not it has any existential presuppositions. Be that as it may, the dominant character of the syllogism is formal, i.e, its validity is primarily determined by the form alone, irrespective of the material component. No resort to the world is essential in the process of validating a syllogism, and quite often the premises are known to be true because they are intuitively so, being primitive, self-evident logical truths. Thus, the Greek methodology of knowledge, whether Platonic or Aristotelian continued to be speculative in nature, with no crucial dependence on experience or observation of the factual, material happenings of the world.

[2] The Nature of Knowledge in the Qur'an

A new conception of knowledge became gradually known with the revelation of the Qur' an knowledge in the Qur' an is true, certain and indubitable knowledge of what truely exists in its own right. Thus knowledge must be totally free from doubt or misgivings. In the Qur'anic conception of things, this kind of knowledge is primordially the knowledge possessed by Allah

Alone, and is revealed in His Divine Scriptures, especially the Qur'an. Man can acquire this knowledge from the Divine Scriptures, but he can also acquire it if he employs his mind correctly. Thus valid objective rational inference is also conducive to true, indubitable knowledge. The intellect is a precious divine gift, and is therefore a reliable source of true apodictic knowledge. However, reason can not function without the mediation of the senses. Thus sensible knowledge is only an initial stage, in the form of sense-data. It is both pictorial and particularistic. Universal concepts are supplied by the intellect, on the occasion of its reception of these sense-data. But the sense-data themselves are real, and in the normal condition (i.e. the recipient being quite sober, in the full possession of his faculties, etc.), they are real depictions of the corresponding reality outside the mind : thus the Qur'an talks about the knowledge of the external world as certain knowledge."

Allah (SWT) says in the Holy Qur'an

"الذين آتيناهم الكتاب يعرفونه كما يعرفون أبناءهم
وإن فريقا منهم ليكتمون الحق وهم يعلمون" (1)

i.e. This verse can be rendered as : " Those unto whom We gave the Scripture recognize it (this revelation), as they recognize their sons.

Allah also said in the Holy Qur'an

"أو كالذي مر على قرية وهى خاوية على عروشها ، قال أنى يحيى هذه الله بعد موتها ! فأما الله مائة عام ثم بعثه قال كم لبثت؟ قال لبثت يوما أو بعض يوم ! قال بل لبثت مائة عام ، فانظر إلى طعامك وشرابك لم يتسنه وانظر إلى حمارك ولنجعلك آية للناس وانظر إلى العظام كيف ننشزها ثم نكسوها لحما..... فلما تبين له قال أعلم أن الله على كل شيء قدير .." (2)

This verse can be rendered , in English, as follows " or (ponder you of) the like of him who, passing by a township which had fallen into utter ruin, exclaimed : How shall Allah give this township life after its death? And Allah made him die a hundred years, then brought him back to life. He said : How long have you tarried ? He (the man) said : I have tarried only for a day or a part of a day ! He (Allah) said : Nay, but you have tarried for a hundred years! Just look at your food and drink , they have not rotted and look at your ass ; and that we may make you a token unto mankind. And look at the bones (of your ass), how we adjust them and then cover them with flesh! And when the matter became clear unto him, he said : I know now that Allah is capable of doing everything."

Verses in the Qur'an which commend knowledge, and invite man to use his mind, and his senses in the pursuit of knowledge are very numerous indeed. Of these verses, Muslim philosophers such as al-kindi, al-Farabi, Ibn Sinna and Ibn Rushd, were fond to repeat the following ones

"فاعتبروا يا أولى الألباب" (3)

This verse can be translated in English, as follows :

"so learn a lesson, O men of understanding "

The Arabic word (Fa'tabirou), has been understood differently by Muslim scientists and philosophers of antiquity ; whereas the scientists understood it to mean " experiment with " so that al-I'tibar meant, for them, experimentation, the philosophers understood it to mean " deduce.", so that al-I'tibar meant, for them deducing or deduction. Thus the word I'tibar became part of the philosophical technical Jargon, and meant both inductive inference or the methods thereof.

Another Qur'anic verse which has often been quoted by Islamic philosophers, such as al-Farabi, Ibn Sina, and Ibn Rushd, is the following verse :

"سنريهم آياتنا في الآفاق وفي أنفسهم حتى يتبين لهم أنه الحق.
أو لم يكف بربك أنه على كل شيء شهيد" (4)

This verse can be translated as follows :

" we shall show them Our portents on the horizons and
within themselves, until it will be manifest unto them
that it is the Truth !

Do not your Lord suffice, since
He is witness over all things"

Underlying this obvious Qur'anic emphasis on the need to find and provide evidence for knowledge claims, and the Qur'anic allusion that this evidence could be sought in the universe and within the mind and the soul, is the acknowledgement that mere subjective belief, no matter how strongly it is adhered to emotionally, will not suffice as an objective criterion of knowledge .

Objective criteria of knowledge indicated in the Holy Qur'an, are as follows : A claim constitutes a knowledge claim if and only if

1. it is free from contradictions, internally within the claim itself or externally, i.e., it does not contradict an established fact of the world.
2. it is certain, and cannot be doubted ; a knowledge claim is indubitable. Both its contradictory and contrary must be definitely false, so that its truth cannot be doubted, no matter what happens. In the words of al-Ghazali, even if someone tries to falsify a knowledge claim which is indubitable and apodictic, and in his eagerness to impress us, he was able to change his stick into a snake, we will not feel in the least persuaded to doubt what we have established as indubitable knowledge, although we may wonder at his ability to change the stick into a snake!!
3. In order to pass as indubitable knowledge, a knowledge claim must be supported by valid proofs or arguments. These proofs and arguments must serve as solid grounds supporting what we take as certain knowledge. Thus the certainty at issue is not mere strong subjective belief, resting on the strength of our emotional convictions no matter how dogmatically held. The certainty at issue is epistemic certainty, resting on objective, intersubjective and rationally demonstrable proofs or arguments. The validity of those proofs and arguments must be decided by experts in the relevant field (Ahl oz-Zikr) :

"فاسألوا أهل الذكر إن كنتم لا تعلمون (5)"

Alla says in the Qur'an :

" Ask the people with true knowledge if you do not know"

This Qur'anic demand that knowledge claims must be supported by valid proofs and arguments; i.e. valid in the strong epistemic sense of being objectively decidable by a community of experts in the relevant field, can be documented by many explicit verses of the Quran itself :

"وقالوا لن يدخل الجنة إلا من كان هودا أو نصارى تلك أمانيهم ،
قل هاتوا برهانكم إن كنتم صادقين " (6)

"and they say : No one will enter paradise, unless he be a Jew or a Christian. These are their own wishful thoughts . Say : bring your proof (of what you say), if you are truthful ... "

The Mu'tazilites' conception of knowledge

The Mu'tazilites (al- Mu'tazilah) were a school of Islamic philosophical thought, that was active in Iraq in the second, third and fourth centuries A.H. They were rationalists, and sought a thorough rationalization of the basic tenets of Islam. In their view, true knowledge is of three types or levels ⁽⁷⁾ :

1. The first level is primitive a priori knowledge like the knowledge of the ten Aristotelian categories, together with space and time. It is also knowledge of propositions like :

1) $2+2 = 4$.

2) Nothing could exist at two different places at the same time.

3) The whole is greater than the part.

These kinds of primitive truths are universally ascended to because they are a priori, in- built, so to speak, in the human understanding .

2.The second level is that of true, intuitive knowledge, which is obtainable by the eye of reason , i.e. the internal sense, counterpart of the external sense of eye-sight. Thus, we "see" by this internal sense that:

1) every effect has a cause.

2) that every complex object or artifact has a creator or maker.

3) That God exists, as the Creator and Designer of this world, is intuitively knowable, according to the Mu'tazilites. When their critics denied that knowledge of God's existence is intuitive, in this sense because atheists exist, and are abound, they retorted by saying that only stupidity, unthoughtfulness, laziness of the mind and imagination, and forgetfulness, could impair any one from seeing that " God exist" is a basic, intuitive truth.

3. In the third level, there is inferred or logical knowledge. This is indirect knowledge, where deductions are involved. If the premises were true, and the rules of logical inference correctly applied, then the truths that result, as consequences, are necessarily true propositions.

According to the Mu'tazilites all truths reached in these three levels or types of knowledge are necessary, apodictic truths, that are certain, and not open to any doubt. Thus, knowledge is always certain and indubitable. Nothing could be called knowledge, unless it is, at the same time certain in this way. Thus, the Mu'tazilite conception of knowledge is a corollary of the Qur'anic conception of knowledge in many respects. According to Abu al-Huzail al- Alaf, one of the early founders of the Mu'tazilites, the first stage in the pursuit of knowledge is to doubt and expel false, unsubstantiated beliefs, irrespective of the sources from which these false beliefs issue. Then, by speculative and deductive knowledge, a person should ponder himself and his consciousness, and obtain, as a result, an intuitive knowledge of himself, as a created being, in need of a creator. To Abu al-Huzail al- Alaf, this is the first certitude (the first apodictic truth).

The second level of certitude is to infer that God exists, as a creator, since it follows logically, for Abu al-Huzail, that, a created being, must have a creator, which is Allah (subhanahu wa ta'ala). This line of thinking, reminds us, quite naturally, of Rine Descartes; his method of doubt, his Cogito, and his clear and distinct ideas that are necessarily true. The Mu'tazilites preceded Descartes by almost a thousand years.

As rationalists, the Mu'tazilites affirmed the being of mental concepts. Mental concepts are things (Ashya; singular : Shay)⁽⁸⁾. A Shay is something known or is knowable. It does not have to be a concrete material thing. For them, conceptions are mental propositions, and as such they signify facts, i.e., mental facts, which are a dimension of being, even more real than concrete material objects since they are prior in being to the particularized objects. The soul is a thing, i.e., a Shay' , because it is intuitively knowable. It was also a Shay' , before its creation, because it was known, i.e., in God's knowledge. Thus mental propositions, propositions which are affirmations or negations about mental objects, signify certain, apodictic knowledge according to the Mu'tazilites. The theory that mental objects are things (Ashya') is ascribable to Abu al-Hu'zail al-Alaf, who is said to be the first Mu'tazilite to advocate it. The epistemic and logical importance of the Mu'tazilites' discussion of the concept of "ash-Sha'yyah" (i.e. Thingness) must not be overlooked. As rationalists, they wanted to affirm the being of mental propositions as facts, depicting real entities, not in the material sense of being concrete particular things, but as concepts that exist in the understanding. Thus, the realm of being is not to be exhausted by concrete material things; and logical predications do not necessarily presuppose the existence of material things. A true proposition, may presuppose the being of abstract entities. For those abstract entities to have true being, it suffices to know them by the direct intuition of the internal sense, in normal conscious experience. The allusion to normal consciousness is meant to exclude hallucinations, aberrations, malfunctions of the brain etc. etc....

Al-Farabi's Conception of Knowledge:

In his "Kitabu al Burhan" Al Farabi indicated his definition of knowledge as follows⁽⁹⁾.

" The word knowledge " ILM" signifies true apodictic belief " tasdiq", which is a true apodictic belief concerning the existence of and the cause of that which is known"

Then al- Farabi defines " true apodictic belief (al- Yaqin ad-Daruri)" as that "Tasdiq" which

1) could not be otherwise, i.e., cannot be doubted, no matter what happens. Its contradictory is known to be definitely false, and whose

2) object (i.e., that which is known) must be of those things whose being (or existence) is omnitemporal, i.e., always existing (fi al-Umur ad-Daimat al -wugood) "⁽¹⁰⁾ "الأمر الدائمة الوجود"

An example of this type of certain knowledge is the proposition :

The whole is greater than the part

Thus for al- Farabi, this absolute certain knowledge is "yaqin Daruri" i.e. apodictic certitude. The objects of this Yaqin Daruri, exist necessarily in the sense that they are omnitemporal. The objects signified by the proposition contrary to that of apodictic knowledge are impossible to exist. So what is known necessarily also exists necessarily, i.e., what exists necessarily, if it is ever known must be known with certainty (i.e., bi Yagin Daruri)⁽¹¹⁾

Two considerations stand out very clearly, concerning al- Farabi's definition of "ILM" or knowledge :

1) It is necessarily anchored in the independent being or existence of things-in-themselves. To him, nothing yields true apodictic knowledge unless

(i) it has independent existence, or being

(ii) that existence or being is omnitemporal, i.e., is always the case, unchangeable.

2) Secondly, it is related to the causes of these existing objects.

The relationship between knowledge and its objects is reciprocal, certain knowledge implies that its object is omnitemporal in their being or existence, while omnitemporally existing things impart true apodictic knowledge to us. Now, we may legitimately ask : How much of this Farabian conception of knowledge is Greek (Plato, Aristotle and Plotinus)? and how much is originally Farabian ? In so far as knowledge to al -Farabi, is knowledge of omnitemporal objects, it bears an obvious resemblance to both Plato and Aristotle. It is Platonic in so far as its objects are not particular material objects, because these are not omnitemporal in their existence. So these objects must be abstract, mental objects. But it is Aristotelian in the sense that these objects exist in time, and they are somehow related to concrete material objects; much as forms are related to matter.

Be that as it may, al Farabi's definition of true certain, apodictic knowledge can not be divorced from his general theory of knowledge : This theory is related to the powers of the human soul or reason on the one hand, and to the abstract immaterial intellects, on the other hand . The interaction between the human intellect and these immaterial Intellects (Uqul Mufariqah) is a dual-carriage way, which is described and expounded in al-Farabi's theory of knowledge, and which consists of

five stages of jadal (Dialectic). To al-Farabi, as it was to both Plato, and Plotinus, this jadal (or dialectic) has two movements, one ascending, the other descending .

The ascending dialectic is the action of the human intellect in its quest to obtain true, apodictic knowledge. The ascending dialectic starts from the sensible world and moves upward towards the Active Intellect (al-Aql al Fa'al), and beyond. In the process of this ascending dialectic, the human intellect goes through the following successive transformations :

1. Al- Aql bil Quwah : Initially, the human intellect is a " Aql bil Quwah, i.e, a potential readiness to receive sensible impression of sensible objects. For al-Farabi, man as a rational animal has a potential capacity to understand . This capacity has two aspects : (i) The first aspect is the mere readiness of the human soul to understand (ii) the second aspect is that this understanding has, as a built-in faculty , to acquire universal concepts, divorced from their sensible images. These universal concepts exist, potentially in the intellect of all humans, even in children . They are thus prior to every experience . They only become felt or actual, when sense-data are received by the mind, due to the infringement of physical objects on it. While Aristotle represents the understanding, in this initial state, as the empty tableau, Al-Farabi seem to prefer another simile : likening this initial state of the understanding to a shapeless Mass of Wax.⁽¹²⁾ In this initial stage, of al' Aql bil Quwah, the human understanding is the mere capacity to receive the sense- data.

2. Al-'Aql bil Fi'l : When the understanding is conscious of these sensible impressions as definite concepts, it becomes transformed from passive to active intelligence: It is transformed from Aql bil Quwah to Aql bil Fi'l. This transformation is brought out by the action of Al-Aql al-Fa'al; that is the Active Intellect, which subsists on its own right. The significance of this Active Intellect is that it influences and controls the world of being and corruption .

3. Al- 'Aql al- Mustafad : This is the capacity of the understanding to ponder its concepts, and further more to manipulate them . It is the power responsible for such processes as analysis, synthesis, criticism, classification and differentiation . Thus al-'Aql al- Mustafad is the speculative, analytical mind, capable of innovation and synthesis. It is a higher stage of being than al-'Aql bil Fi'l, (i.e. Actual Intellect). Again, the human understanding achieves this development, due to the action of the Active Intellect, which is a metaphysical entity.

4. The Union with al-'Aql al-Fa'al: The union with al-'Aql al-Fa'al (The Active Intellect) becomes possible only after the development of al-'Aql al-Mustafad, which is the highest stage in the ascending dialectic of the Farabian theory of knowledge. In cultivating this 'Aql al- Mustafad, a person becomes close to al- Aql al-Fa'al, because it becomes clear and clean, like a mirror, ready to receive the emanations proceeding from that Active Intellect.

According to al-Farabi, only very special persons can achieve this high stage of being able to unite or even to have constant contact with Active Intellect. But if any one wants to achieve it , then one must be pensive, and meditative to such a high degree that this becomes a second nature to him or her . However , the nature of this exercise of al - Aql al- Mustafad, by means of which it is able to achieve union with the Active Intellect (the tenth Intelligent of Platonus) is strictly theoretical, according to al-Farabi. No talk about the purgation of soul or the cleansing of heart is found in al-Farabi.

Such esoteric , mystical theory was first developed by Ibn Sina. For al-Farabi, the highest perfection , by means of which man achieves his summum bonum, i.e., his greatest happiness is, as it was for Aristotle, pure philosophical reflection or meditation . In other words, those capable of developing their intellectual faculty to the most, the prophets and the philosophers, are the only candidates to achieve union with the Active Intellect, and to draw directly from the knowledge therein ⁽¹³⁾.

Ibn Sina's Theory of Knowledge

Ibn Sina is an indirect student of al-Farabi. He himself has explicitly acknowledged this, in his autobiography. The new development which we find in Ibn Sina, is his introduction of the concept of al-Irtiyadh, i.e., mystical experience of purgation of the soul and heart, through the techniques of fasting, exclusion, practicing long period of prayers, together with the total abstention from any material or worldly indulgence of any sort. In short, Ibn Sina involves the necessity to cultivate, what we may call mystical or esoteric intuition, in addition to the strictly intellectual . That is to say, Ibn Sina involves the whole of the soul, which he calls the self (an-Nafs) in his quest to obtain knowledge of the higher, divine order, proceeding from the Active Intellect. Ibn Sina himself was not known to have led a mystical life, and doubts were expressed, by his opponents, that he was talking about a topic, namely mysticism, of which he had no first-hand experience. Be that it may, his description of mystical experience ⁽¹⁴⁾, how it comes about, and the various stages through which it passes, is so vivid and sincere, and so close to the standard accounts, given by leading

mystical saints of Islam , that one is tempted to believe that he might have had some genuine mystical experience, of some sort or other.

Thus, in Ibn Sina, are found all the essential features of al-Farabi's theory of knowledge. This is hardly surprising, as Ibn Sina explicitly acknowledges his philosophical indebtedness to al-Farabi as we indicated above. The new elements in Ibn Sina are due to the following factors:

1. His contact with more Islamic and more oriental, emanational sources, especially Ikhwan as-Safa (the Brethern of Purity) and the Ismailiyyah.
2. His more independent, philosophical inclination, and his oriental philosophy.
3. Because of these two factors (namely (1) and (2)) , Ibn Sina left his own finger prints, not only in his late works, such as "Al- Isharat wa at-Tanbihat (Remarks and Admonitions)" and his "Muntig al-Mushriqeen", but also in his earlier works, such as the voluminous, encyclopaedic, "Ash- Shifa” . In “ ash- Shifa", Ibn Sina was not a mere compiler, but an independent author, who gave himself, a sizable latitude of freedom, in the exposition of peripatetic philosophy. He exercised some freedom in deleting those topics, which seemed trivial or unimportant to his mind, while he elaborated others, which seemed important and substantive. Shortcomings of the basic Aristotelian text were rectified, by Ibn Sina, and some implicit points were made explicit. In his exposition of the Aristotelian logic, Ibn Sina made some additions of his own, so as to make that logic more applicable to the world of empirical facts. In these additions, he emphasized the material component of logical arguments. In his quest to make logic more applicable to inductive matters, Ibn Sina made elaborate studies on modal and temporal syllogistic logic.

To Ibn Sina, as it was to al-Farabi, certain indubitable knowledge is firmly rooted in the facts of real, objective, self - subsistent existence, and the chain of causation operative therein. Thus a valid logical argument, which constitutes a logical demonstration (i.e. Burhan) must proceed from true, indubitable premises, satisfies the rules of valid logic, and must yield, in the end, a true, indubitable conclusion. To Ibn Sina, these premises could be

- 1) Logical primary truths, such as :
 - the whole is greater than the part,
 - two quantities which are equal to one same quantity must be equal to each other, etc,etc ...
 - 2) Definitions, mainly having to do with classification of genus and species, etc..
- (1) and (2) (are called by him al-Awaliyat), (i.e. primitive truths).
- 3) Matters of immediate sense experience, both of the external and the internal senses, are called by him al-Mushahadat.

4) Consistent reports, given by a group of people who could not agree to deliberately misreport what they had witnessed. These, Ibn Sina calls 'al-Mutawatirat'. That is to say, reliable reporting by almost all the independent narrators of different regions and different times, and different sources of information, each of them reporting quite independently of the others, so that it is practically impossible for them to collude on lying or misreporting of what they witnessed or heard. In so far as both religion and historical events are reports of past or mystical events, the importance of this Sinian innovation could not be overestimated. His break with Aristotle and other Greek sources, is so enormous that attempts to trace these Sinian innovations to ancient Greek sources have failed. The orientalist either tried to underestimate this great Sinian addition to logic and the theory of knowledge, or else tried to trace it back to Stoic or Megarian sources. Yet, the Greeks did not have any knowledge of the methodology of valid narration ('Ilm al-Riwayah). This science was developed by the Arabs, even before the advent of Islam. The Arabs employed it in the science of genealogy, of which they were so obsessed. Pure unmixed genealogy was a hallmark of noble birth, for these pre-Islamic Arabs. The Arabs also made use of this science of valid narration to conserve their history, often recorded in long poems which were transmitted, by word of mouth. Abu Bakr, the first Rightly-guided Khalif, was known to be an authority on Arab history and genealogy. He was known to have an incredible memory, on which he relied.

Thus, the science of Riwayah (narration) is an Arabic and Islamic science, which was cultivated to very high standards, by Ahl al-Hadith. Historians, too, made great efforts to develop this essentially Arabic science. They used it in the documentation of historical events. The Muslim jurists, on the other hand, used it, in their studies of the Islamic political and administrative offices. Those jurists gave it a new name, when they called it 'Ilm ar-Rijal, i.e., the science of (the characters of) men.

Be that as it may, Ibn Sina thus managed to cultivate a comprehensive theory of knowledge which draws on three basic sources :

(1) The first source is through contact with the spiritual celestial beings and with Allah, (Subhanhu wa ta'alla). One of these chief spiritual, or celestial Beings is al-'Aql al- Fa'al or the Active Intellect, i.e., the Giver of forms or ideas. For the Islamic philosophers (e.g. al- Farabi), this Active Intellect, is an angel, (possibly Gabriel) who is in charge of imparting knowledge to humans, either in the form of Wahi (or divine inspiration to prophets) or in the form of Il'ham (divine inspiration to other than prophets). Ibn Sina here made much use of the conceptual framework, and the

conceptual machinery of Al-Farabi's theory of the union with the Active Intellect, although he introduced some modifications of his own.

(2) The second source is the logical theory of the Aristotelian syllogism, and the self-evident primary truths contained in the premises of apodictic proofs.

(3) The third source is that of empirical experience, especially direct sense-experience of the external and the internal senses.

Thus Ibn Sina succeeds in building a comprehensive theory of knowledge, with a very broad epistemic base : his apodictic syllogism (Burhan) makes use of self-evident true premises drawn from various sources:

i) Religious texts of the Qur'an, sunnah, and from documented historical sources (these are the Muta-watirat).

ii) empirical knowledge based on direct sense-experience (Direct External Sense).

iii) true mystical experience of the heart (Direct Internal Sense).

iv) logical axioms, definitions or primitive truths of rational intuitions, i.e., a priori logical knowledge.

v) proven theories and past accumulated valid experiences of the human race.

Ibn Sina's theory of contact with Active Intellect

Ibn Sina does not speak of a union with the Active Intellect. However, he asserts that, in its highest state, the human intellect could achieve some kind of contact (or epistemic union) with the Active Intellect. this highest state is called by Ibn Sina al-'Aql al-Qudsi (Divine Intellect). In Ibn Sina, this Divine Intellect is a further development of the Acquired Intellect, considered by al-Farabi to be the highest stage in the mental and intellectual ascent of man. It can not be cultivated by mere theoretical or philosophical contemplation. Only the few elect can achieve it through mystical experience of an Islamic variety, the nature of which has been indicated earlier, in this study. Whereas, al-Farabi postulated the area of contact between man and the divine order, i.e. (the Active Intellect) to be the phantasia (al-Makhyalah), Ibn Sina made the 'Aql al-Qudsi (Holy Intellect) to be that point of contact. thus Ibn Sina, being more subtle and careful than al-Farabi, is not open to the charge that he put the philosopher (who uses both the Acquired and the Qudsi intellects) in a higher plain than the Prophet (who, according to Farabi) uses only the material Intellect or the phantasma. Thus, to Ibn Sina, the ascending stairs of human cognition is five-stepped:

1. The Material (hylic) Reason which is either completely without any form, or as the bearer of primary logical truths.

2. Al-Aql bil-Malakah, which is actual Reason, with some concepts and forms actually formed in it by the Active Intellect, though, these concepts and forms are not actually felt; they are there as a potentiality.

3. Then there is the actual intellect, (al-'Aql bil Fi'l). Here, we find actual primary logical truths as well as inferred truths. It is not yet reflective or critical understanding. However, even at this stage, the human Intellect is transformed from potentiality to actuality.

4. The Acquired Intellect (or al-Aql al-Mustafad) is the critical, reflective Intellect, found in contemplative minds. It is the highest intellectual achievement according to al-Farabi, and only the few elect can develop it.

5. The Holy or Divine Intellect (Aql al-Qudsi) is the highest faculty, according to Ibn Sina. It is a further development of the Acquired intellect, and is found only in some exceptionally pure-hearted persons, of mystical persuasions, whereas, the Acquired Intellect can be cultivated by mere theoretical, philosophical reflection. This Holy Intellect can only be cultivated by mystical regimentation or "Irtiyadh ", according to Ibn Sina.

It is only these individuals who manage to cultivate the Holy Intellect that can achieve a contact or union with the Active Intellect, according to ibn Sina. They become qualified to receive direct emanation of knowledge from the Active Intellect. Those with Holy Intellects, have hearts as clean and pure as polished mirrors. Thus, for Ibn Sina, the ideas, concepts and forms in the Active Intellect, become reflected in the Holy Intellect of al-'Arifeen wa al-Wasileen, i.e., those endowed with knowledge and contact, with the Active Intellect. If this contact takes the form of divine revelation, then he who achieves it is a prophet. But if it is mere divine inspiration, then he who achieves it is a mystical or sufi master or Saint ⁽¹⁵⁾, i.e., one who manages to join the rank and order of the celestial beings, an intellect of luminous nature constantly glorifying the Name of his Lord-the Almighty.

Al-Ghazali's Theory of Knowledge

Al-Ghazali starts his discussion of the nature of true knowledge by criticising the Mu'tazilite definition of it: The Mu'tazilah say :

"Knowledge is the belief which is congruent (Mutabiq) with the reality of object of the belief." Al-Gazali maintains that this definition is mistaken, on three accounts :

(i) Firstly, mere belief must be distinguished from true knowledge, no matter how strongly it is adhered to by the believer. The grounds for this strong adherence may be merely psychological, and subjective, lacking in any objective grounding. What distinguishes true knowledge from mere

belief, in al-Gazali's opinion, is that, in the case of true knowledge, the knower is consciously maintaining one of the two contraries of the matter ; while at the same time constantly considering the other end or extreme, but refusing to accept it on epistemic grounds. While on the case of mere belief, the believer is adamantly refusing to consider the contrary position, without having any valid epistemic grounds for this proposal.

(ii) Secondly, the Mu'tazilie definition of knowledge as : "T'tiqadu a Shay 'ala-ma huwa 'alayhi" makes knowledge a function of (al-ashya'), i.e., existing things. But, says al-Ghazali, knowledge can be a function of non-existing things, that is knowledge about concepts of non-existing things which may subsist as abstract entities or quiddities. At the root of this criticism, which al-Ghazali launches against al-Mu'tazilah' is the well-known disagreement between Ash'rites, (of whom al-Ghazali is here a spokesman), and al-Mu'tazilah about non-existing things: could we say that they are something (Shay') or not ? Al-Mu'tazilah believe that non-existing things are something, while the Ash'rites rejected this, and said non-existing things are not something (Shay').

(iii) Thirdly, mere belief, no matter how strongly adhered to : could be wrong, as is the case with beliefs held very firmly by ignorant people, who are mere followers of others (mere Muqalideen, i.e., copiers). AlGhazali gives the examples of some religious beliefs of the Scripturists (Jews and Christians), which, according to him, are plainly false, but which are very strongly held by them.

The upshot of this Ghazalian criticism of the Mu'tazilite definition of knowledge is the following :

- i) Firstly, true knowledge could not be described as a belief simpliciter. The nature of belief simpliciter is a mere judgement, which may or may not be based on any concrete evidence, and as such it is closely associated with mere opinion, Dhun or Doxa.
- ii) Secondly, true knowledge is definitely not the beliefs adhered to by ignorant people, even if these beliefs happen to be true by mere chance, because they were held without valid reasons which are at the same time maintained consciously.
- iii) Thirdly, true knowledge has to do with real existing as well as non-existing things. That is to say, knowledge is either affirmative or negational. The affirmative knowledge is true if what is being affirmed is found to obtain in real, existing or subsisting terms, and negational knowledge is true if what is negated actually does not obtain.

Moreover, mere beliefs are static; they are not changed, even though their objects do in fact change in reality ; while knowledge is dynamic, it changes if its real objects change. Mere belief is like a

fast knot, while knowledge is understanding and expounding ..., i.e., the undoing of these knots of mere beliefs is knowledge, because knowledge is, in a way, a kind of unravelling or revealing. It is an expansion of our consciousness, and the satisfaction that attends that consciousness.

Al-Ghazali's Characterization of True Knowledge

Al-Ghazali believes that it is not possible to give a precise and comprehensive definition of knowledge. Therefore, he proposes to characterize it by the means of (a) an exhaustive enumeration, and (b) by an analogy. The exhaustive enumeration is meant to be an exhaustive enumeration of all the things that are definitely not true knowledge. Using the method of "al-subr wa at-Taqseem", which corresponds to the method of Residue in J.S. Mill, Al-Ghazali hopes to enumerate all types of non-knowledge, hoping that the residue will stand out clearly as what is meant by true knowledge. Then he goes on to give an analogy, which is a kind of representation of what happens when true knowledge of something is being acquired.

As to the exhaustive list of all types of non-knowledge, they include :

1. Doubt and falsehood (superstition, legends, methology)
- 2.al-Dhun (Doxa)
3. Mere belief,
4. all types of psychological powers and disposition, e.g., the will, the power to do something.

As to the analogy of true knowledge, al-Ghazali uses the simile of the mirror : The mind is like a mirror in that images and impressions of things outside to the mind are reflected into it, as they are in-them-selves, when existing, independently, out-side the mind. Thus these images and impressions and concepts, in our mind, are images and impressions of things out-side the mind. They look like exact(or very similiar) representations of the things-in-themselves. Al Ghazali uses the Arabic word "Suwar al-Ashya' to refer to these mental representation of the-things- in-themselves. However, it is quite clear that "Suwar" does not simply mean images or pictures or even sense-impression :

"What I mean with the expression "Suwar al-Ma'qulat" is "Haqiqatuha wa Mahiyatuha", i.e., the essence and the quidity of the things represented.

This means, to al-Ghazali, that the forms or concepts (suwar) of what is known, are not mere images or impression; rather they are the real essences and quiddities of the things- in-themselves,

to use a Kantian jargon. Thus the mental representations of things-in-themselves, which al-Ghazali designates as 'Suwar al Maqulat' are a product of the mind, not arbitrarily, but as a result of the impingement of the images and sense-impressions of those things on the hyllic or material mind. They are thus "true" representations of those things-in-themselves, and they, supposedly, bear a close resemblance of how these things-in-themselves are in the realm outside the mind. But now do we know that they truly represent the nature of things-in-themselves?

In the case of the mirror, we have the chance to compare our mental image, say of a cat, as a thing-in-itself, and the picture of that cat on the mirror. In this way, we infer logically that since the image of that cat on the mirror, looks very much like our mental image of it, the two images (one mental, the other on the mirror) must be (1) images of one and the same thing (2) since the two images are similar, and since similarity always exists, whenever the cat in question appears, they must be similar to the cat-in-itself. (3) and thus, they represent the same true, permanent and objective feature of that cat ; something that subsists in the cat as it exists independently of both the mind and the mirror.

Thus, for al-Ghazali, the analogy is not pushed to its extreme. The analogy between the mirror and mind is true to some extent, because whereas the impressions of things-known continue to be mere images and impressions in the mirror, which only passively receives them, the mind converts the images and impressions of the senses into forms, concepts, real essences and quiddities of the things-perceived or known. Thus, to the Islamists, starting from al-Farabi, and passing through Ibn Sina, and finally al-Ghazali, knowledge is not a mere phenomenon of the understanding alone, as it is for some idealists, like George Berkeley : Rather, it is a product of two things ; (1) the impingement of things-in-themselves outside on the mind, (ii) and the concepts which the mind supplies to the sense-data, which it receives. These concepts are not pictorial; they are abstract, and thus are totally free from any association with matter. concepts to al-Ghazali, as they are to Kant are a priori, being supplied by the mind from its own resources. They are prior to all experience ; yet they only become meaningful when they act as forms or frameworks to sensible experience. Before the reception of sense-data, these primary concepts are mere potentiality - inbuilt in the primitive original nature of the human soul. Thus, these prior concepts are a priori, not derived from sense experience, and without which sense-experience will not constitute knowledge or even understanding. The human self or soul is nothing but the faculty or instinct which is a repository of these a priori concepts.

Definition: Eventually, al-Ghazali defines knowledge as follows : ⁽¹⁶⁾

Knowledge or ('ilm) is the imprint in the mind of the essences and quiddities of things-in-themselves, as they exist out-side the mind.

The use of the word imprint or "Intiba" is misleading, in my view, because, what is so imprinted are not images or pictures, but abstract concepts which represent the essences and the quiddities of things-in-themselves. The sense-impressions only exist in the common sense or even the Wahimah (i.e., short term memory). Al-Ghazali leaves no doubt in the mind of his readers, that what is imprinted in the mind, beyond the makhyalah (Fantasia) and the wahimah (short term memory) are not images or pictures, because he goes on to say that what is imprinted in the mind and heart of the human being is the Divine Presence in toto : "Al-Hadhrah Al-Ilahiyyah". Al-Ghazali then defines this Al-Hadhrah Al-Ilahiyyah as the sum of all existing things :

"Jumlat al-Mawjudat" for nothing constitutes being or existence save Allah Ta'ala and His actions.
(17)

In conclusion, we may venture to say that, for the Islamic philosophers, i.e., "al-Farabi, Ibn Sina and al-Ghazali", although the process of understanding or acquiring knowledge starts with sense-perception, it attains its full scope only through the action of the mind itself . The two factors, sense-impressions and mental concepts are together both necessary and sufficient, but separately each of them is a necessary factor of attaining knowledge. Although the mind is the dominant, commanding factor, yet without the senses and the sense-impressions, it is blind, and no knowledge can be acquired without the mediation of the five senses, and, for both Ibn Sina and al-Ghazali, the internal sense.!

To al-Ghazali, as it was to Ibn Sina, knowledge is essentially certain, and indubitable, and cannot be doubted at all. This indubitability (Yaqin) comes from the mind and equally from the things existing out-side the mind; al-Ghazali includes in the primary axiomatic true premises, not only primary logical truths, but also an exhaustive list of five types of indubitable truths, which can serve as true premises of valid, logical demonstrations or Burhan (proofs). These are the following :

(1) Al-Awaliyat (primary primitive logical truths):

These are pure truths of reasons (Al-Aqliyat al-Mahdhah) to which we have already referred. e.g.
(1) man's knowledge of the existence of soul (2) that a thing cannot have a property and its negation
(3) that $2 = 1 + 1$, (4) a thing cannot both be eternal and has a beginning in time (Muhdath)

(2) Al-Mushahadat al-Batinah:

These are propositions of direct acquaintance by the internal sense, e.g., man's knowledge of his own hunger, thirst, fear, and joy. These are not caused by the five senses, they are purely psychological conditions which could be known to the animals, the young children and grown-ups alike. in contrast to the al-Awaliyat Al-'Qliyah, which can only be known by grown-ups.

(3) "Al-Mahsusat Az-Zahirah" :

These are direct acquaintance by the external sense , e.g.,

- (1) snow is white
- (2) The Sun is luminous
- (3) The Moon is round

(4) At-Tajribiyat :

These are acquired from habitual experience ,e.g.,

- (1) fire burns
- (2) Bread satisfies hunger
- (3) stone falls down, if unsupported
- (4) wine intoxicates.

Al-Ghazali says that the indubitability of these propositions, drawn from experience, is not due to the senses alone, internal or external. Their indubitability is derived from repeated experience. Those who have not had any experience with respect to At-Tajribiyat may doubt or even deny them. But men of common experience will know them with certainty ..., e.g., a physician will know with certainty that Siqmunia causes diarrhea; and a scientist will know with certainty that a magnet attracts iron. In so far as these Tajribiyat are universal propositions, they are not known by the senses alone. These Tajribiyat are known by the mind or intellect, through the mediation of the senses, or by repeated observations. Through repeated observations, the mind knows, by means of a covert syllogistic inference, that , for instance,

- 1. Fire warms
- 2. Bread satisfies hunger

Since these two propositions are repeatedly the case, they could not be true by accident, but they must express causal connections, which explain their continuity. Habitual constant conjunctions between causes and their effects is a sure sign and a necessary condition of causal efficacy, in al-Ghazali's opinion. However, it is not a sufficient condition. What al-Ghazali denies in (Tahafut al-Falasifah) is the proposition that the connection cause and effect is a sufficient one. Thus At-Tajribiyat must be distinguished from Al-Hisiyat (whether internal or external) in that while the latter involves direct acquaintance by means of the senses (internal & external), the former

involves indirect inference, which assumes or presupposes the law of causation, and makes use of it. Those who do not possess knowledge of At-Tajribiyat, however, will do well to ask those who are in possession of this knowledge, just as a blind man must ask men with normal vision to tell him, by means of geometrical proofs, the real size of the sun, for instance .

(5) Al-Mutawatirat : (concurrent reports):

These are reports, authentic, reliable and documented reports, which we accept on the authority of the reporters, e.g.,

- Makka exists
- Ash-Shafi'i once existed
- The Muslim's daily prayers are five in number

Al-Mutawatirat, like At-Tajribiat, must be repeatedly ascertained : knowledge does not obtain by hearing these reports only once or few times. The initial reports are no more than mere Doxa. But if confirmed many times by reliable authoritative sources with respect to which lying is impossible, then they impart true authentic knowledge, which is suitable to be used in true indubitable premises in a valid logical demonstration, (al-Burhan). Al-Ghazali refuses to count as indubitable al-Wahmiyat (i.e., clear and distinct subjective propositions), which are strongly adhered to on psychological grounds only . For al-Ghazali, clear and distinct propositions could only be accepted as logical truth if they are further supported by independent logical proofs. This is how it is possible for him, to separate truths of reason which may also be clear and distinct, from mere psychological insights which may also be clear and distinct, but not supported by an independent logical proof or demonstration. Incidentally, Descartes' clear and distinct ideas seem to be borrowed from Al-Ghazali, as the latter's works translated into latin since the twelfth century, A.D.

To al-Ghazali, the mere Wahmiyat are derived from al-Wahimah, a faculty closely allied to the common sense, since its main function to store the impressions of sensible objects, when they are no longer directly presented to the sense by their concrete persons or things. However, the function of al-Wahimah is not merely to store the singular impressions of things and persons, when they are no longer under the direct inspection of the sense. It moreover, has the power and capacity to synthesize these impressions into propositions, and exercise a fair latitude of freedom with respect to them. It thus can analyze, synthesize, and re-group and re-arrange them in any form it wishes. Thus, it is clear, that the propositions of the mere Wahmiyat could not be viewed as logical truths, solely on their psychological strength, since they could be imaginary, due to tampering and muddling of the Wahimah . Moreover, al-Ghazali rejects the Mashurat (commonly held, famous opinions) as suitable instance of true premises of logical proofs or demonstration; because although

these Mashurat could sometimes be true, they are sometimes false, no matter how commonly and widely accepted by the majority of people, or even by all.

Examples of these Mashurat, given by al-Ghazali are :

- 1) Telling lies is bad
- 2) Deliberately causing pain to an innocent person is bad
- 3) To be ungrateful is also bad
- 4) To be grateful is good
- 5) To save life is good.

Al-Ghazali says, that although these Mushurat may sometimes be true, they are not to be viewed as axiomatic truths of the mind (Awaliyat), nor as Wahmiyat, that is, as clear and distinct subjective propositions. They are not inborn either, says al-Ghazali, but only acquired through the indoctrination of the society. This does not mean that these ethical propositions are not true in-themselves. It only means that common people accept them as true without hearing valid sound arguments to support this acceptance. They accept them, because they are taught to accept them by their parents, teachers, and by people whom they hold in high respect. Thus, for al-Ghazali, Al-Mushurat, much quite like al-Wahmiyat, are not in all cases logically true : they need to be supported by independent logical proofs or demonstrations.

(6) Epilogue :

In conclusion, it would appear that the Islamic theory of knowledge made some significant departure from Aristotle's, though it remains indebted to him to the Neo-Platonists, especially Plotinus. This theory has been launched by al-Kindi and al-Farabi, especially al-Farabi. But it reached its maturity in Ibn Sina and al-Ghazali. The main contributions are those of al-Farabi and Ibn Sina. But it is definitely Ibn Sina who must be credited with the new additions, and innovations, which managed to convert what was essentially an Aristotelian and Neo-Platonic theory into an Islamic Theory. The major contribution of Ibn Sina is his theory of indubitable logical premises, which al-Ghazali has accepted and summarized in the discussion above. The basic Ibn Sinian innovation here seems to be his inclusion among indubitable, logical truths (i) & (ii) the testimony of the sense, (internal as well as external), together with (iii) the general propositions drawn from the sense experience, i.e. at-Tajribiyat, and (iv) the authentic concurrent reports of reliable authorities. If we add to these what al-Ghazali here terms Al-Awaliyat (i.e., primary logical truths), we have five major types of logical truths, which are equally logical and indubitable, Namely:

- (i) Al-Awaliyat (primary logical truths of reason)
- (ii) Al-Hisiyat Al-batiniyat (direct testimony of internal sense)
- (iii) Al-Hisiyat az-Zahiriyyat (direct testimony of external senses)
- (iv) At-Tajribiyat, (propositions drawn from experience)
- (v) Al-Mutawatirat : concurrent or congruent authentic reports of reliable authorities.

In so far as nos. (ii) to (v) are material propositions drawn from experience of the outside world, the extent of the Islamists' departure from Aristotle and other Greek authorities is quite clear. It is also clear that the tendency towards the factual realities of the world, and the anchoring of logic on factual as well as cognitive grounds is an Arabic and Islamic addition though its germ exists in Aristotle. Yet the Islamic theory of knowledge remains basically cognitive, in that the intellect plays a crucial role in every instance of cognitive or epistemic process even though it derives from a diversity of sources, viz. Divine inspiration, sense-impressions, etc. Thus the role of the intellect is dominant, though it cannot operate without the assistance and the mediation of the senses, internal, as well as external.

The corrigibility of the intellect itself is guaranteed by its Maker, Allah (Subhanahu wa ta'ala.). This last statement must be accepted as a presupposition, if we are to avoid the circular statement that the intellect guarantees itself. Another way of escaping vicious circularity is to settle for the rather innocent circularity of saying that primitive logical truths are self-validating.

The tendency towards the external world is no doubt one of the influences of the Holy Qur'an. The Qur'an has clearly accepted, as logically valid, the direct, intersubjective testimony of the external senses, and of the general propositions drawn from them. In so far as it is a Wahi (divine revelation), the Qur'an itself has been accepted as the authentic reliable, documented reports of the authentic prophet of God, Muhammad (Peace be upon him).

Thus, the departure of Islamic philosophers from the essentially deductive theory of knowledge of Aristotle has its firm roots in the Qur'an itself. Moreover, the Islamicists emphasis of the ontological aspects of knowledge is also clearly a Qur'anic influence. According to these Islamicists, there are at least two essential ontological aspects that play a crucial role in the process of the human understanding : (a) the existence of God, Al-Mighty (b) The existence of external world. physical objects affect our understanding by supplying us with sense-perceptions, without which the process of understanding does not begin.

On the other hand divinely revealed knowledge proceeding from God-Al-Mighty, according to these Islamicists, affects our understanding, when it is (i) communicated to prophets, by means of Wahi and or (ii) is inspired into hearts and minds of men of understanding or wisdom. This communication takes place via the transcendental celestial intellects, especially the Active Intellect (Al-'Aql al Fa'al) . This three-legged characterization of the process of the acquisition of knowledge (i.e., via the senses, natural reason, and divine reason (or inspiration) is due essentially to Al-Farabi, but it had been adopted and developed by Ibn Sina, and Al-Ghazali adds that, even natural reason is a divine gift. The testimony of the senses alone, quite separated from reason, is blind, and does not make sense, while natural reason alone cannot guarantee its own validity, because to say that reason validates reason is circular. God, the AlMighty must guarantee the corrigibility of reason. Yet this last proposition is something rational to say, given that we accept the supposition that God-Almighty is the Creator of reason itself, whatever it may be. Since God is All-Good, and His Munificence is unlimited and most consummate he must have created reason in the most perfect condition, most sound and most suitable for its object of attaining sound, authentic knowledge. But if the soundness of reason is thus guaranteed by God, the Almighty, then the primitive a priori propositions which it affirms, e.g., "the whole is greater than the parts", and that "nothing could have as its predicates two contradictory properties at the same time " must be accepted as necessary true propositions, which are self-evident and stand in no need of any proof. According to this line of thought which is basically due to al-Ghazali, ⁽¹⁸⁾ it is rational to accept the proposition that "Reason alone guarantees these primitive primary truths of reason." True , this last statement is circular. But this circularity is not vicious : Vicious circularity obtains when the conclusion is presupposed by the premises, in which case, we say that the fallacy of "Petitio principle" ⁽¹⁹⁾ is committed. In other words the circularity at issue, is innocent. One way of demonstrating this innocence is to proceed along the line proposed by al-Ghazali, when he alluded to the "light thrown upon his breast" ⁽²⁰⁾. Al-Ghazali's metaphor of the "light" can be interpreted as the proposition, indicated above, that the soundness of reason is guaranteed by God, the AlMighty.

Since the soundness of reason is guaranteed by God, the Al-Mighty, what it "sees" as self-evident, and universally so, i.e., accepted by all, must be self-evidently true. Another way of "selling" this innocent circularity is to say that rationality amounts to no more than validity in self-contained axiomatic systems. These primitive propositions, such as "the whole is greater than the part", etc., will be mere axioms or presuppositions in these axiomatic systems. They are to be accepted as presuppositions of some proof or other. They commend themselves to the understanding as self-

evident, clear and distinct; and, moreover, easily assented to by all. Nobody, who understands their meaning, would disapprove of them. Other traits of these axioms or presuppositions are :

- consistency; no contradictions are admitted in the axiomatic systems.
- they are simple and independent,
- they are enough to make possible the derivation of all the truths that belong to the system in which they function as axioms and presuppositions. This is the condition of satisfiability.

This innocent circularity is a methodological or deductive circularity. It is the circularity involved in saying that axiomatic systems internally guarantee the truth of their theories and premises. One may object to this kind of truth as being relative, since it is only guaranteed within the axiomatic systems. But one way of meeting this objection is to say that, we may construct as large, and as universal an axiomatic system, as we please, or manage to construct, it is still true, that, if the premises are self-evident and universally accepted, then the conclusions and theories we manage to derive within the system are near to universality and objective truth as anyone could get.

In conclusion, these Islamic "Oriental"(21) philosophers, were not able to come up with a conclusive definition of knowledge, because, apparently, no such definition exists. This is still the case, in the contemporary philosophical scene today, knowledge is only definable in terms of either its subject matter, its methodology or its general characteristics. But nobody is quite clear what the essential nature of knowledge is . The Islamic philosophers, much as contemporary philosophers today, were forced to be content with a mere characterization of knowledge, a characterization that will do the job of distinguishing, in the first place, between knowledge and non- knowledge and, in the second place, will stipulate some essential properties which are common to all kinds of knowledge claims. For instance, knowledge claims must have the properties or attributes of being:

- i) exact in their expressions,
- ii) depict the outside reality of the physical world, in some way or other,
- iii) must be consistent, and free from contradictions,
- iv) must be objective, in the sense that their truths and theories must be intersubjectively valid, i.e., assented to by the experts and by the community of learned and intelligent persons at large. No reasonable objection to them are raised which cannot be met or answered conclusively by the experts on the relevant field.
- v) they are provable, within the axiomatic system in which they occur.

vi) they are apodictic, either logically provable, or are supported by massive evidence, if they are inductive generalizations (e.g. Copper expands when heated. All Crows are black).

One way to demonstrate the truth of these massively- supported inductive generalizations is to infer them as conclusions of a hypothetico- deductive systems. The premises of these systems could be of inductive or factual nature, and, or of primitive primary logical truths. They are to be accepted or " believed " because they are so evidently true, and sort of universally accepted by all. They evoke no rejection or protestation from any rational soul. Thus "believing" them is a rational thing to do. Since we have to start with some primitive propositions as premises, it is rationally better to choose them . Our preference of them over

other competitors, is a rational preference, because the others are either plainly false, or merely subjective, not enjoying any universal support or proof.

Since the publication of the Gettier thesis ⁽²²⁾ (1963) on knowledge and belief, and his rejection of the traditional solution to the problem of how best to define knowledge (going back to Plato), there has been a spur of trials, nearly all of them unsuccessful. The problem of whether or not a satisfactory definition of knowledge exists is still an open one within these trials . To the best of my knowledge, it is still very much an open question to the present day of writing this study. Thus, the Islamicists' failure to come up with a satisfactory solution to this very thorny cardinal problem of epistemology is hardly surprising. What the Islamicists tried to show, with some modest measure of success, I think, is to indicate that (i) knowledge is a function of the rational part of the soul, (ii) and that the soul is of divine origin and consequently of transcendental nature . In this context, it is possible to understand the immense attraction which they found in the emanation theory of Plotinus, though of course they subjected that theory to no small measure of amendments and alterations. In fact, it led to the development of a drastically new epistemic orientation, at the hands of these Islamic philosophers. Starting with al- Farabi's reference to the angels as referents to the celestial intellects, and to Gabriel in particular, as the Active Intellect, the Emanation theory was given an Islamic garment . Thus, Ibn Sina (Avicenna) spoke about ' al- Feudh ar-Rabaniyya", i.e., God's munificence and generosity to man as well as animal, manifested in such phenomena as the baby's ability and competence, from the first moment, to suckle, to avoid falling down by clinching to any support he can find ; the fear and panic of a sheep in the first encounter ever with a wolf. To say that these traits are innate or inborn, or, to use a contemporary jargon, to say they are in the genetic code of these creatures, is just to push the question as to their origin a step backward. For both Ibn Sina, and al-Ghazali, these cognitive aspects of man's behaviour are a divine gift, a light from the ultimate source of all light and illumination, Allah, Subhanahu wa ta'ala . To inquire about these intellectual concerns is in the very nature of human

reason . It is not satisfied until it gets to the ultimate answers to these "whys", and will not be stopped. To try to stop it at an arbitrary point, in some intermediary cause or other, is tantamount to being anti-intellectual, and dogmatic. But this dogmatism is both futile and very inhuman to embark upon.

Subhanka Allahuma wa bihamdika- Ashhadu an la illaha illa Anta. Wa as-salatu wa as-Salamu 'ala sayyidina Muhammed wa 'ala alihi wa sahbihi wa Sallam.

"The last of our prayers is Al-Hamdu lillahi rubbu al-'alameen”

Notes and References

We are referring here to the works of the famous Islamic philosophers, e.g. al-kindi, al-Farabi, ibn Sina, al-Ghazali, Ibn Rushd, and Ibn Tufail. What characterizes these philosophers and subsumes them under one list is the fact that they were greatly influenced by Greek philosophy, especially Plato, Aristotle and Platonus.

1. Holy Qur'an : The Cow (2 :146)
2. Holy Qur'an : The Cow (2 :259)
3. Holy Qur'an : The Exile (59:2)
4. Holy Qur'an : Fusilat (The Expounded verses) (41 : 53)
5. The Holy Qur'an : Al- Anbiya' (The Prophets): (21:7)
6. The Holy Qur'an : The Cow (2:111)
7. Dr. Ahmad Subhi (Fi'Ilm al-Kalam, Part 1, Al-Mu'tazilah, Page 205), Dar al- Nahdah al-Arabiya, Beirut, 1985.
8. Dr. Ahmad Subhi, Previous reference, p.274, see also Richard Frank : The Metaphysics of Created Being, p. 45-53.
- Also vide
- Al-Asfarayyini : at-Tabsyr fi adDin.
- Al-Baghdadi : al-Farg bayn al-Firag
- Al-Baghdadi : Asul al-Din, page 71.
- ash-Shahristani : Nihayat al-Aqdam, p. 33
- Zuhdi Jar Allah : Al-Mu'tazilah, page 57.
- Al-Boyer Nasri : Falsafta al-Mu'tazilah, Part 2.
9. Al-Farabi : (Kitab al-Burhan, edited by Dr. Majid Fakhri, page 24 Dar al Mushriq), Beirut.
10. Al-Farabi : "Kitab al-Burham" edited by Majid Fakhri, page, 21, Dar-Al-Mushriq, Beirut.
11. Al-Farabi, Same references, page 22.
12. Al-Farabi : Risalah fi al-'Aql, page 14.
13. For references on al-Farabi's theory of knowledge, the following works can be consulted:
- Al-Farabi : Kitab ahl al-Madinah al-Fadilah
- Al-Farabi : Risalah fi al-'Aql
- Al-Farabi : At-Ta'liqat
- Al-Farabi : Fusus al-Hikum
- Ga'ffar Al-Yasin (Ph.D): (Al-Kindi wa al-Farabi), Dar AL-Andalus, Beirut, 1983.
- Muhmoud Qasim: (Fi al-'Aql wa an-Nafs), Cairo, 1952.
- Majid Fakhri:
 - i) A History of Islamic Philosophy (Al-Farabi, and Edition), Longman, London 1983.
 - ii) Dirasat fi al-Fikr al-'Arabi, Dar an-Nahar, Beirut
 - Ibrahim Madkur Fi al-Falsafah al-Islamiya : Manhaq wa Tatbiq (Two Volumes), Cairo.
14. References on ibn Sina are as follows:
 - i) "ash-Shifa, Kitab an-Nafs
 - ii) an-Najat, edited by Dr. Majid Fakhri, Dar-al-Afaq ajJadidah, Beirut, 1985, pp. 203 ff.

- iii) al-Isharat wa at-Tanbihat, edited by Dr. Sulayman Dinyyah, Cairo, especially the last three chapters of Part III. Also on ibn Sina, vide.
- iv) Majid Fakhri, A History of Islamic Philosophy (ibn Sina) pp. 128 ff.
- v) Ja'ffar Al-Yasin (Ph.D.): (ibn Sina, 'Alim wa faylasuf), Dar al-Andalus, Beirut 1986.
- 15. Al-Ghazali : 'Al-Mustasfa' min Usul al-Figh, Vol. 1, page 26. Dar al-Kutub al 'Iomiyah, Beirut, (1322 A.H.)
- 16. Al-Ghazali : Same reference as above. Page 26.
- 17. Ibid, page 27.
- 18. Al-Ghazali : Al-Munqidh min ad-Dalal,
- 19. This fallacy is first discovered by Aristotle.
- 20. Al-Gazali, Ibid.
- 21. The term "Oriental" is here used to refer to the philosophers of Baghdad as a whole (though of course they are different schools), because the contrast here is between the Occidental school of Muslim Spain and magrib and that of the Oriental of Baghdad.
- 22. Edmund L. Gettier : "Knowledge is not Justified True Belief....." Published in Analysis, vol. 26, (June 1963).